

Q1 The frontend is currently not very accessible (in the sense accessibility was defined in the lectures). If you would be given the task to improve the accessibility in a short amount of time, what would be the most important aspects to focus on? Give arguments for your choice. (8 Points)

Using proper tags for each element is a great place to start, making sure each tag contains info(class and id) available for screen readers.

If this information is not available or poorly implemented people with impaired sight might not be able to use our application properly.

As well we have to make sure font-sizing is relative to the client so the user can set its own font-size in the browser for a better experience.

Meta tags might also help since they give more information about the website, which is good for accessibility as well as search engine optimization

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Q2 While the JavaScript code in the frontend is short, there are some parts that are cumbersome and repetitive. Which part of the JavaScript code (both the one provided and the one you wrote as a part of the practical part) should be replaced by calls to external libraries or frameworks? Give arguments for your choice. (8 Points)

Creating each element, giving it attributes and appending it to a parent element is quite repetitive, for instance with react 4 lines of code can be minimized to 1. An example of this is our deletebutton, in my code could look something like this

```
“React.createElement(‘button’, {classname: delBtn}, {id: delBtnId}, “Delete Note”);”
```

(note: I am not that versed in React so this could be erroneous)

which in this instance I find much more readable than our current code.

Q3 The backend is RESTful in the sense discussed in the lectures. For one of the endpoints, give an example of how the endpoint could look like if it would violate the REST uniform interface constraint. Explain why such a violation would be of disadvantage compared to the RESTful solution. (8 Points)

Lets take our post method as an example, If for example proper identification was not implemented correctly, such that every resource has its unique id, we could end up with 2 resources that share the same uri and that is not good.

Q4 The backend in its current form does not have any restrictions and could be susceptible to Denial of Service attacks, in which a large number of calls to the backend could overload the server. Without introducing authentication or authorization, how could the backend be improved to make such attacks less likely? Give arguments for your improvement suggestion. (8 Points)

Q5 The backend (including the added POST request) might be susceptible to XSS (Cross-Site Scripting) attacks. Discuss how an XSS scenario could look like in the case of this application. (8 Points)

An attacker could possibly enter some code into “content” text box.